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Attorney Docket No. 09812.0086

**AMENDMENTS UNDER PCT ARTICLE 19  
(ARTICLE 19 AMENDMENTS)**

**International Application No. PCT/JP2005/017648**

**MAIL STOP PCT**

**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

Sir:

**REQUEST FOR SUBSTITUTION OF REPLACEMENT SHEETS**

Please substitute the attached replacement sheets 53-60 of the claims containing the English-language translation of the Article 19 Amendments for sheets 53-59 of the claims in the enclosed English-language translation of the as-filed PCT application. It is respectfully requested that the claims in the substitute sheets be examined during examination of the patent application. Claims 1-19 are currently pending.

Respectfully submitted,

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CLAIMS

1. (Amended) An information processing apparatus comprising a plurality of operating systems (OS's), the plurality of OS's including a control OS controlling communications between the plurality of OS's, wherein the control OS controls message transfer between logical partitions set up for respective communication executing OS's, by switching a message area in a physical address space from a mapping state to a message area in a logical partition address space in a message transmitting OS to a mapping state to a message area in a logical partition address space in a message receiving OS, and wherein at least one of the communication executing OS's in communication operation generates a system control program containing logical partition management information, performs, together with the control OS, system operation control based on the system control program, and generates a socket associated with a file descriptor identified by a file system managed by own OS.

2. (Amended) The information processing apparatus according to claim 1, wherein at least one of the communication executing OS's in communication operation

generates a virtual file accessed via the socket, and accesses the message area in the physical address space via the virtual file.

3. (Amended) The information processing apparatus according to claim 2, wherein at least one of the communication executing OS's in communication operation using the socket acquires an identifier of the virtual file associated with the socket, and performs one of a message write operation and a message read operation using the virtual file identified by the acquired virtual file identifier.

4. The information processing apparatus according to claim 1, wherein at least one of the communication executing OS's in communication operation generates a socket associated with a file descriptor identified by a file system managed by own OS, and maps the message area in the physical address space to an address space of a process via the socket so that the process directly accesses the message area.

5. The information processing apparatus according to claim 1, wherein at least one of the communication executing OS's in communication operation generates a socket

associated with a file descriptor identified by a file system managed by own OS, and maps the message area in the physical address space to an address space of a logical partition corresponding to the communication executing OS via the socket in order to access the message area.

6. The information processing apparatus according to one of claims 2 through 5, wherein the communication executing OS in communication operation using the socket sets an identifier of service corresponding to the socket, and sets communication permission corresponding to the service.

7. The information processing apparatus according to one of claims 2 through 5, wherein the communication executing OS in communication operation using the socket performs a reception monitoring process on a message via the socket.

8. The information processing apparatus according to claim 7, wherein the communication executing OS performs the reception monitoring process on the message via the socket by applying a select system call.

9. (Amended) A communication processing method of an

information processing apparatus storing a plurality of operating systems (OS's), comprising:

    a message transfer control step performed by a control OS between communication executing OS's, the message transfer control step comprising

        setting a message area in a physical address space to a mapping state to map to a message area in a logical partition address space of a message transmitting OS, and

        releasing the mapping state and setting the message area in the physical address space to a mapping state to map to a message area in a logical partition address space of a message receiving OS, and

    an executing step performed by at least one of the communication executing OS's in communication operation, the executing step comprising generating a system control program containing logical partition management information, performing, together with the control OS, system operation control based on the system control program, and generating a socket associated with a file descriptor identified by a file system managed by own OS.

10. (Amended) The communication processing method according to claim 9, wherein at least one of the communication executing OS's performing message transfer generates a virtual file accessed via the socket, and

accesses the message area in the physical address space via the virtual file in order to perform message transfer.

11. (Amended) The communication processing method according to claim 10, wherein the communication executing OS in communication operation using the socket acquires an identifier of the virtual file associated with the socket, and performs one of a message write operation and a message read operation using the virtual file identified by the acquired virtual file identifier.

12. The communication processing method according to claim 9, wherein at least one of the communication executing OS's in communication operation generates a socket associated with a file descriptor identified by a file system managed by own OS, and maps the message area in the physical address space to an address space of a process via the socket so that the process directly accesses the message area.

13. The communication processing method according to claim 9, wherein at least one of the communication executing OS's in communication operation generates a socket associated with a file descriptor identified by a file system managed by own OS, and maps the message area in the

physical address space to an address space of a logical partition corresponding to the communication executing OS via the socket in order to access the message area.

14. The communication processing method according to one of claims 9 through 13, wherein the communication executing OS in communication operation using the socket sets an identifier of service corresponding to the socket, and sets communication permission corresponding to the service.

15. The communication processing method according to one of claims 9 through 13, wherein the communication executing OS in communication operation using the socket performs a reception monitoring process on a message via the socket.

16. The communication processing method according to claim 15, wherein the communication executing OS performs the reception monitoring process on the message via the socket by applying a select system call.

17. (Amended) A computer program for controlling communications in an information processing apparatus storing a plurality of operating systems (OS's), comprising:

a message transfer control step performed by a control OS between communication executing OS, the message transfer control step comprising

setting a message area in a physical address space to a mapping state to map to a message area in a logical partition address space of a message transmitting OS, and

releasing the mapping state and setting the message area in the physical address space to map to a message area in a logical partition address space of a message receiving OS, and

an executing step performed by at least one of the communication executing OS's in communication operation, the executing step comprising generating a system control program containing logical partition management information, performing, together with the control OS, system operation control based on the system control program, and generating a socket associated with a file descriptor identified by a file system managed by own OS.

18. (Amended) The computer program according to claim 17, wherein the executing step performed by at least one of the communication executing OS's in communication operation comprises

generating a virtual file accessed via the socket, and accessing the message area in the physical address

space via the virtual file in order to perform message transfer.

19. (Amended) The computer program according to claim 17, wherein the executing step performed by at least one of the communication executing OS's in communication operation comprises

mapping the message area in the physical address space to an address space of a process via the socket, and  
accessing directly the message area.